Space-time as a symbolic, cultural and curricular element of educational practice: Constitution of place as an educative and identity process in Spain and Latin America

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This paper presents a theoretical discussion about space-time as a curricular element which the student learns certain dynamics and positions to knowledge. The interactions to student's whit curriculars elements are necessary to build knowledge, like other curricular elements, the perspective of use of this element is important to type of learning that is built. Both the organization the space-time and the position and orientation of the bodies in classroom can favours different types of social interactions and learnings in students.

Traditionally, the disposition of classroom has followed a technical paradigm and has developed an organizational structures and space-times focused on effectiveness. This perspective propose activities and learnings hierarchical which teachers is the centre of knowledge and they expertise and experience are important to learn. In this sense, students have a secondary plan of action based to assimilation and repetition learning. However, other perspectives focus to the distribution of the classroom for build a space-time and bodies focused on construction of horizontal relationships between peer through activities that "use" the space-time to suggest common interaction and learnings.

This work is focussed to analyses these organizations to classroom and explain the embodied symbology, the communicative relationships, and the possibilities of knowledge construction that we build through the use of the space-time in classroom.

1. Introduction

The organization and structure of the classroom has previously been addressed in the scientific literature from an educational point of view (Muñoz-Rodríguez and Olmos, 2010; López Martínez, 2005; Trilla and Puig, 2003; Colom, 2005; García del Dujo and Muñoz Rodríguez, 2007; Martín, 2011). Studies have focused their analysis on architectural aspects, the geographic location of the school, the distribution of spaces within the school and classroom organization.

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The classroom has been analysed from an architectural point of view based on the distribution of its elements and didactic materials or the placement of furniture (López Martínez, 2005). Such analyses demonstrate that the way furniture is organized has an impact on interpersonal relationships and the type of communication that occurs among students. The distribution of furniture can generate ways of thinking and social structures among people who coexist in educational space-time (Trilla and Puig, 2003). The school, understood from a material perspective, is part of the hidden curriculum that students learn through the implicit practices that the architecture and the space-time distribution generate – through performative and embodied acts – between the student and teacher. Recently, new proposals have emerged for understanding objects, social structures and human practices as "agents", that is, as actors—even if they are inorganic and inert materials—that actively construct and configure the sociocultural practices of human beings (Monforte, 2018), facilitating the construction of not only the environment in which human

beings find themselves but also their own organic, cognitive and cultural existence (Durt, Fuchs and Tewes, 2018).

In this sense, some authors indicate that space can be lived in two different ways that are frequently confused: a *lived space* and a *perceived space*. Perceived space refers to how spaces are conceived and conceptualized, that is, to the physical reality that catalogues and classifies each of the spaces (for example: town planners, engineers, politicians, etc.) (Shields, 1999). However, lived space refers to how space is represented through images, symbols or non-verbal signs associated with spaces and that are overlays on physical space (Lefebvre, 1991).

This lived space creates, in the words of Elden (2004), spatial practices that create some habits on physical space, and they symbolic associations, which configure the experience of everyday life in which both the conception and the symbolic influences of the space as the physical perception.

However, the literature has infrequently addressed school space-time from a symbolic point of view. The spatio-temporal dimension is the context in which relationships are constructed among all living things and the materials they inhabit through continuous interactions (Muñoz-Rodríguez and Olmos, 2010), mutually influencing one another in dimensions that may be complicated to address but are nonetheless important to recognize and investigate.

As we have stated, school space-time has not been properly addressed based on its symbolism in configuring interpersonal relations and how agents configure relationships between humans and the context that surrounds them. This spatio-temporal perspective requires the elements of the physical world to sustain itself and is also in many ways be affected by them; hence, it does not deny the materialist perspective of the analysis of the classroom but complements it. For this reason, this article aims to analyse the classroom from the point of view of its spatio-temporal distribution, taking into account that the symbolic nature of space-time generates specific interpersonal relationships in the classroom. To do this, we will develop our analysis based on the study of proxemics, that is, the relationship that is established between people during the communication process with respect to the distance between them and is framed within the space they occupy both physically and symbolically.

2. Symbolism and the meaning of the body in space-time: Proxemics

Proxemics is a term used in anthropology that refers to the study of space-time from a personal perspective in establishing a process of communication between human beings (Motos, 1983). This space-time that is inhabited and communication with other people are not independent

categories in the communication process; rather, they must be contextualized within a socio-cultural framework that characterizes the type of communication and symbolism associated with this communication (Hall, 1966). They are generated as processes that occur as a whole in a simultaneous space and time, as a single variable, condition or dimension, although many authors continue to treat them as two separate instances or dimensions. We believe that all space is generated in one time and that all time conforms to a concomitantly defined space (Claro, 2008), and hence we must consider and analyse these elements as a single dimension.

In this sense, Hall (1966) establishes five types of space in the arena of communication regarding the distance that is maintained during the communication process, regardless of the context in which it occurs. These spaces are the internal, intimate, personal, public and social. Using this proposal, we will understand this classification or structure based on the space-time unit by virtue of the fact that it is within this unitary deployment of human actions that symbolic experience is produced (Merleau-Ponty, 2000).

Regarding the above consideration, Hall (1966) defines internal space-time as that which has as its outer limit the skin of each person. Communication in this space is introspective in nature, as we establish an internal dialogue with ourselves. Despite the fact that the limits of this space are circumscribed by the limits of the body itself, this space can be modified in a manner similar to the way breathing, for example, increases and decreases the volume occupied by the body, or embodiment (Henry, 2001), which can change the internal space. Even though Hall does not indicate the internal limits of this space-time, we believe that they may infinite given that introspection involves multiple internal states of consciousness and experiences that can overlap and yield to one another to create new types of consciousness, for example, meditation.

Intimate space-time is immediately beyond internal space-time and extends some centimetres from our body (embodiment). In this type of space, a very intimate type of communication is created with the person with whom communication is established – generally in informal situations (Moreno, 2016) – and culture has a great influence on this communication because the distance that defines this space varies according to cultural origins (Antolín, 2013). For example, Asian culture has a larger intimate space compared with Latin culture, in which this space is smaller.

Personal space-time borders intimate space and extends approximately to the imaginary line traced by our corporeality in action. It is a space-time in which both informal and formal relationships can occur and compared to the previous space, in which physical contact is nearly necessary, communication can occur within personal space

without the need for such contact. Moving within this space enters us into relationships with the people and objects around us. As before, the outer limits of this space carry important cultural weight and vary depending on the sociocultural framework in which we are located.

Public space-time immediately follows personal space-time, and its limits are very diffuse given that they are at sometimes defined by architectural structures, such as the walls of a theatre, a classroom or an athletic centre, and at other times are limited by a broad and abstract concept, such as a beach or a mountain. Because this space-time is very broad and diffuse, elements of the previous space-times appear, disappear and transform because they are irrelevant within the frame of reference of public space-time. For example, when we analyse the public space-time of the beach, personal space-times disappear because our attention is unable to focus on them. This does not mean that they cease to exist but that they dissolve and disappear from our sight. In this sense, the major limits of this space-time cause our corporeality and its meanings to no longer reside in our own embodiment or the position it adopts. Its meanings should be understood within the relationship that is constructed within the limits of the space-time occupied by both the individual and the group, that is, in the relationship that is established with the rest of the corporealities that cohabit a space, in the binding relationship of the inter-corporealities (Durt, Fuchs and Tewes, 2018). Three elements of the meaning of the body in public space are defined: 1) my corporeality, with a self-constructed meaning and symbolism; 2) my corporeality and the meaning and symbolism granted to it by other corporealities in the group relationship; and 3) my position within space-time with respect to the group and, at the same time, the position that the group itself occupies with respect to the space-time limit, which in turn constructs a meaning and symbolism about my body. The second of these elements introduced in this space is the symbolism and meaning that is constructed according to the type of public space-time occupied by our corporeality (a desert, an athletic centre or a classroom) and, within this space, the subdivision or plot in which our corporeality is situated within that space-time; that is, public space can be divided into smaller zones that are granted a constructed social meaning, and inhabiting those zones relates us in a characteristic way to the rest of the zones and people who occupy them (Antolín, 2013). In this way, space-time acts as a generator of symbols from affection or affects that deployment in a given space-time generates in embodiment, so that hierarchies, stereotypes, ideologies and behaviours are created based on the dimensions of the space-time and the characteristics that are attributed to it socially and culturally.

Hall (1966) defines social space-time as a space that is restricted and occupied by the diverse cultural elements that determine a specific community. The limits of this space-time are also diffuse given that it borders public space, which, as we stated previously, is imprecise. Its area is delimited by the set of cultural elements that define that community, such as a language, a type of cultural practice or specific architectural and topographical element. Examples of this type of space-time include urban landscapes; social constructs, such as continents or countries; or a community of speakers of a specific language. Communicative acts based on this type of space have a cultural significance that is framed within the space-time from which people communicate and that also acquires symbolic value.

Therefore, we can summarize that embodied symbolism is constructed through the relationships that are established between corporeality and the space-time in which an action is framed, between the objects that are situated in that space and their position with respect to corporeality, within the sociocultural framework from which we communicate and, finally, within the types of relationships that are established among people who live in that space-time (Antolín, 2013). In other words, general communication within a system of material and cultural referents that contextualize the communication process will always be a network of coordinating beings that are embodied and thus susceptible to the different dimensions of sensitivity that constitute them and that are properties of embodiedness itself.

3. Classroom organization designs

In the same way that the curricular materials used by teachers are elements that mediate between educational practice and the curriculum and represent a link with the curricular theories into which they are inserted (Molina, Devís and Peiró, 2008; Molina, Martínez-Baena and Gómez-Gonzalvo, 2017), the organization of these materials within the school space and time within which they are carried out are a reflection of these same curricular theories. As stated by Gonzálvez, Vicent, Sanmartín, Arráez and García-Fernández (2017), 'The school space, through its organization, will express a given pedagogical intentionality, its design and structuring should be carried out consciously and in accordance with the needs of the group/class and scheduling' (p. 256). For this reason, the structure and organization of the materials and spaces in educational contexts should not be taken lightly, for values, attitudes and ideologies are transmitted through them.

The educational institution has been deeply criticized due to its formative nature at the service of states and domination class. The educational system is a tool that makes it possible to generate, extend and reproduce the dominant ideologies that favour the educational structure itself (Althusser, 1970).

In addition, the educational system serves as a tool for experiencing the power that is generated through the dynamics played out in classrooms in a non-explicit manner based on the materials and their position within the institution (Galbraith, 2013). Thus, the way in which the school space is configured can generate specific attitudes among students and teachers without their awareness because the distribution and configuration of school spaces are not ideologically neutral; rather, they are the result of the existing power relations in schools.

Expanding on forms of classroom organization, Heras (1997) states that two models of organization have traditionally prevailed in classrooms in Spanish and Latin American contexts: the model of organization by territories and the model of organization by work zones.

The *model of organization by territories* is subdivided into two types of distribution. The first is distribution in rows. In this arrangement, the students' desks are all facing the teacher's desk, the blackboard or the projector screen in a rigid and uniform way, that is, with all the students' chairs a similar distance apart. The students' desks may even be fixed to the floor, making it impossible to reorganize the space. Generally, the furniture is light-coloured (in green or white tones), creating a monotonous visual spectrum. This type of organization fosters individualization and a lack of communication as the students' gaze is limited to the front, making relationships with fellow students difficult.

This type of classroom design is oriented towards the maximization of performance through efficacy and efficiency in the educational process (Gimeno, 2005) in a manner that is similar to production lines in factories (Foucault, 1991). This type of structure is grounded in a type of learning based on noncritical memorization and repetition of content (López Martínez, 2005). The objective is for the student to retain the greatest possible quantity of information in line with the *banking concept* of education, such that the student is conceived of as a subject that should be filled with information (Freire, 2013).

The second type of distribution is distribution into small work groups. In this arrangement, according to Heras (1997), the teacher's desk does not have a preferential location regarding the rest of the desks, and the distribution of the class is adapted to certain content or methodological opinions that require interaction among students. This position, which does not privilege the teacher's material, causes attention to be focused within the groups themselves and can even allow groups to be assigned different tasks (López Martínez, 2005).

This type of classroom distribution largely downplays the maximization of learning such that efficacy and efficiency are given secondary importance. In the pedagogical sense, this type of structure is geared towards a type of learning

based on interaction among students and the construction of shared knowledge, in which the teacher guides the learning process (Johnson, Johnson and Holubec, 1999).

On the other hand, the *model of organization by work zones* organizes the physical space into specific activities, and each type of activity has a specific space associated with it (for example, the thinking corner, the reading corner, the toy corner, etc). This type of organization makes the spaces distinct from one another; that is, each type of activity should be carried out in a specific space, as the other spaces are reserved for other types of learning. This type of organization corresponds to a more flexible educational model than the previous organizational structures; in this type of setting, students have an active role in their learning process and participate in their development based on their needs (Heras, 1997).

4. Symbolism in learning space-times

As we stated previously, the space-time itself configures realities, gives meaning to the corporealities that inhabit it and structures power relations. Classrooms are no exception, and hence studying them is essential to distil from educational practice those behaviours that are transferred through the use of spaces.

4.1. Distribution in rows

As has been stated, distribution in rows creates a space-time in which efficacy and efficiency are the values that dominate educational practice. However, this type of classroom is not only designed to maximize the teaching/learning process but also conditions students to learn their 'position' through the power relations established in the classroom.

Focusing on the position occupied by the teacher and students with regard to the others and within the group itself, we find several aspects to analyse.

On one hand, the position and spatial orientation of the students with respect to the teacher produces a unidirectional communication process towards the teacher, as all parties have an assigned space that situates the teacher before all the students. This space of the teacher is bound by the blackboard or the projector screen on one side and the first row of students' desks on the other. However, although we have defined this space as that of the teacher, in reality, it is not the person occupying this space-time that assigns symbolism to this space; instead, it is the other way around: The configuration of the space-time projects the symbolism that is assigned to this person. In fact, regardless who occupies this position, the space-time configures them as the person who has something to communicate to the others and indicates that the communication they generate is of the utmost importance. This space-time can be occupied by the

teacher, which is generally the case; however, it may also be occupied by a father or mother who is giving a lecture/workshop or by a student. For all of them, their importance resides not in their previous role but in the symbolism assigned to their corporeality upon occupying that space. In short, a communication process is constructed that is centred on the body that occupies that specific space. For example, if we take a student and place him or her in that space-time, an outside observer who does not know the person's previous role will identify that body as the one that must be paid attention to based on its position in relation to the rest of the group.

This space also has another type of symbolism associated with it: the authority figure. This space configures the person who occupies it, in the terms indicated by Foucault (1991), as a controlling figure who exercises power over the rest and who is also capable of sanctioning those behaviours that are not appropriate for that space. In addition to this symbolism, this space allows the person who occupies it to move within a medium or high field of movement; that is, the movements of this person are performed in the upper half of their body. On the other hand, the student space is positioned within medium or low fields of movement based on their seated position, which creates a descending directionality from the position of the teacher. In other words, the teacher is symbolically over the students in the communication process, which helps to construct a hierarchical power relationship.

On the other hand, the space of the students is bounded by the edge of the first desk and the wall opposite the teacher. The positions of the students' bodies (seated with their backs toward the other students or, in the best-case scenario, beside one another) denies them the ability to communicate with one another, as their orientation towards the teacher establishes a type of incongruent communication. That is, for students to communicate with one another and make eye contact, a directionality of communication must occur that transforms the communicative orientation.

Additionally, the students are equidistant apart, with a separation distance that causes communication among them to be established in personal space-time. Their position, which is generally fixed, prevents them from communicating in intimate space-time; hence, it is nearly impossible for students to work together and experience and express their emotions. Moreover, the fixed positions limit the possibility of communicating with peers who are nearby, restricting relationships to a small group of people. We should recall that this equidistant positioning isolates and anonymizes the people positioned within it, given that the standardization strips students of their differences.

On the other hand, the space occupied by the student within the sub-space designated for them symbolizes their bodies in such a way that generally, the rows closest to the teacher are designated for the most advantaged students, while the rows furthest from the teacher are occupied by those who are categorized as disruptive.

In short, these types of spaces and their organization favour activity that is centred on the reproduction of behavioural patterns and the content to be taught, with scant interaction among students. Such activity reflects a type of technical educational perspective based on memorization and recall (Gonzálvez et al., 2017). This type of distribution exercises mechanisms of hierarchization through the dimension of space in which participants move and the position the bodies occupy within this space; it simultaneously anonymizes and standardizes students, denying the differences that exist among them. As we have stated, this type of organization only permits one type of personal communication with a limited group of peers and denies intimate and emotional communication among all of the students in the classroom. Such organizational arrangements are linked to a technical curricular perspective in which the student must complete lessons preestablished by experts within a closed and inflexible structure (Escudero, 2007). This type of arrangement ensures that all the elements of the space-time are focused on efficacy and efficiency (Colom, 2005; Molina et al., 2017).

In recent years, the Spanish educational curriculum has resumed epistemological positions based on pedagogy by objectives and the technical perspectives of the curriculum used in the 1970s (Gimeno 1990; Molina and Valenciano 2016). These perspectives are based on the fact that students must develop skills predefined by experts with a high degree of effectiveness and efficiency through measurable and observable indicators.

In this way, students should only worry to achieve academic success to acquire that knowledge as quickly as possible through repetition. The critical sense of the students or their creative and emotional skills are not among the contents of this perspective of the curriculum. So, adults are developed with little critical capacity and few social skills for social relationships which favours the structures of states become authoritarian structures.

4.2. Distribution in small work groups

This type of classroom organization downplays efficacy and efficiency (Johnson et al., 1999) but does not deny them, given that they continue to be determinant values in educational practice in neoliberal capitalist societies (Hargreaves, 1995). This type of organization blurs some of the spatial symbolisms and transforms others, constructing

a different symbolism in each space and sub-space comprising the structure.

Distribution into work groups creates a different type of symbolism and relationships between people, who inhabit a more flexible and democratic educational space. In comparison with the previous type of distribution, the teacher's space ceases to have a central place and specific limits (although the space in front of the blackboard or projector is reserved in a non-exclusive way) and is instead diffused among the students' desks, which are placed in small groups. Communication is not focused on a single space, and more varied communication can be constructed, first, because the teacher's space is mobile and depends upon his or her position relative to the rest of the group, and second, because this type of distribution allows the teacher to communicate with students more closely, occupying personal and intimate spaces in relating with them, and is even capable of creating multi-directional communication.

Despite this, the construction of the authority figure continues to take place through the fields in which the teacher and students move. In the same way as in the previously discussed distribution types, the teacher occupies medium and high fields of movement due to his or her standing position among the desks, while the students, seated in chairs, occupy medium and low fields of movement, and hence a hierarchical relationship is still generated between them. Therefore, the symbolism that is constructed by this space is that of a body open to communication with all participants, but with a considerable degree of hierarchy.

On the other hand, the space reserved for students constructs another type of symbol. Organization in small groups, generally in a circle, opens up the possibility of communication among all students, as the orientation of all students is concentric with respect to the rest of the group (Colom, 2005). In this sense, communication is favoured, and students can establish relationships from different distances; this enables them to develop both personal and intimate spaces of communication and thus express their emotions and experiences within the group, establishing educational relationships among peers. As stated by Freire (2015), a factor of great importance in these types of relationships is what he calls the educational category of love, that is, recognizing and being recognized in the peer group as an emotional and thinking being.

A participant's gaze can be focused on any person included in the group; hence, there are many possibilities for communication, and students have the ability to decide which to pursue. However, this possibility is restricted to the students who are part of the group; there is a situation of communicative incongruence regarding peers outside the group, who may have their backs to the students within a given group or may be blocked by another classmate. In this way, a corporeal symbolism of reciprocity is constructed such that each body, through the group to which they belong, constructs the dynamics generated within the group and symbols projected within group relationships (Tinning, 2010).

This type of structure favours activities involving debate, through which arguments are exchanged; it also favours group work and individualized activities related to the construction of shared knowledge (Gonzálvez et al., 2017; Johnson et al., 1999; López Martínez, 2005). This type of organization is linked to curricular theories and proposals regarding activities based on a practical perspective as it allows activities to be carried out in which students, as a whole and in relation to other classmates, learn about the content covered in class.

4.3. Work zones

As we stated previously, this type of classroom organization creates certain spaces for carrying out specific activities within the space of the classroom; that is, sub-spaces are created, with different norms for each of them.

This type of organization dilutes the hierarchical position of teachers because they do not have a specific space assigned to them in the classroom, unlike in organization by territories. Therefore, the classroom does not reproduce spaces of hierarchy or authority because all bodies can occupy any space. However, in each work corner, a space exists for each body. This space is constructed in an emerging way, and the space designated for the teacher operates in a way similar to that of previous spatial organizations. As it is not previously configured or delimited physically, the teacher's space is mobile and can appear and disappear as activities are carried out; for example, it may initially be established for explaining the task to be carried out and then later disappear to give way to student work. Thus, communication between teacher and students is established in personal and intimate spaces, and hence the hierarchy between these roles, together with the capacity for the space to emerge and disappear, is less intense, and the teacher's role is more akin to that of a guide and an equal in the group (López Martínez, 2005).

Students also do not have a preestablished space in the classroom and, like the teacher, they can occupy any position and orientation. This allows students to also communicate in personal and intimate spaces and hence establishes closer and more emotional relationships among the people in the classroom. As in the case of the teacher, students construct spaces within the sub-spaces used for tasks based on their occupation of those spaces; furthermore, those spaces have a mobile nature. In this case, the space that is constructed does not disappear because it is always present as a symbol and

there is always a task to perform. Despite the fact that work groups can be formed that isolate the members of a group from other students, the activity itself allows these groups to be dynamic and to transform between activities in a self-organized way and based on the students' own interests (Johnson et al., 1999; Moreno, 2016).

A work zone organization favours work proposals based on educational projects in which students participate jointly, interacting with one another and constructing multi-disciplinary knowledge that includes various interests (Armstrong, 2001). As with the previous organization method, this type of organization is linked to practical curricular theories that focus on both developing technical competencies within a subject or specific educational cycle and helping students to learn social values through shared knowledge based on their own practice with active, democratic participation (Molina et al., 2017).

5. Space-times of pedagogical transformation/action

We cannot consider a classroom as only the space contained between the classroom walls. Other types of "classrooms" exist in which students engage in other types of learning because the spatio-temporal and contextual characteristics in which the pedagogical action occurs transform what students learn (Moreno, 2015). That is, carrying out pedagogical actions in spaces different from the "norm" invites participants to reflect on both the context and the space-time in which they are carried out. In this sense, in recent years, educational experiences have been developed in alternative spaces of learning, such as school gardens or educational trips related to a specific topic, that allow for the development of other types of knowledge.

This type of open and flexible space-time is not circumscribed by the academic arena, and therefore, the learning that occurs is not only related to the curriculum. informal learning spaces is a clear example of this position since the learning carried out in these situations responds to the requirements of learning outside the curriculum, that is, a diverse learning from different sources, contextualized and unstructured. These space-times allow movement towards a type of educational practice that is embodied and situated in constant uncertainty, where interaction among the people who inhabit this space does not create fixed categories such as student/teacher; instead, relationships are created among people who experience and inhabit a common space.

These types of space-times provide personal transformation, given that we transform ourselves into equals who live in harmony with the natural, the urban and the social. We transform ourselves in that future with the agents we interact with and, at the same time, we transform the educational space. In comparison with the previous

spaces, which were somewhat fixed and predefined by the administration and teachers, natural space-times contextualize us in the purest anthropological, cultural and social sense. In simpler terms, the educational space-times respond first and foremost to the needs/possibilities of those who make up a network of conversations, beyond the formalities implied by an educational and, above all, a school system.

The space-time should be generated based on those who comprise it according to what calls them together; therein, perhaps, lies the most radical aspect, for if there is nothing that brings the community together, it is anything but an educational community. What is clear is that the participants must be human beings with a desire or need for development, which itself is enough; at the same time, though, not all types of development or form are the same, and hence, ethical proposals or perspectives arise that guide such development and the space-times that are necessary and consistently able to accommodate it.

Based on this consideration, the second aspect involves the historical transformations of those who make up the community and how they have been advancing, regressing or transforming the ethics of space-times according to changing contingencies and contexts. However, in critical education, the foundation is the processes of liberation and care for those comprising the community and the conditions that make the community possible.

6. Space-time as an educational tool in the classroom

Space-time is postulated as a fundamental element in establishing or denying social relations, power relations or hierarchies within the classroom. In fact, the occupation of one space or another by students or teachers produces a series of symbols and determinants that construct a type of communication and hence relationships among people (Colom, 2005).

As we stated previously, the organization and location of spaces reflects the curricular theory that frames educational practice. Traditionally in Spain, a type of spatial organization in rows has been used that is based on technical curriculum theory, which prioritizes efficacy and the control of students (Guarro, 2007). This type of spatial organization dehumanizes students because the standardization and homogenization that educational institutions exercise over students deny other possible realities and force students to adjust to these standards (Moreno, 2017). Teachers therefore adopt the role of an agent of authority (a punitive agent of control and of knowledge) granted by the spatial distribution, their position in the space and the materialization of these roles in their body. Generally, teachers reproduce the type of organization in rows in

schools as they ignore the ideological and productive implications of this type of organization since they reproduce the traditions of the school itself without questioning these implications.

Proposed alternatives to the distribution in rows should be accompanied by a change in the management and organization of spaces, as proposed by López Martínez (2005), through classrooms that allow the dimensions of the space to adapt to the work, with a high level of flexibility in the distribution of the elements that allows the classroom to work in different ways. Such alternatives should also be polyvalent to expand their use outside of teaching hours and allow for broad communication among those who inhabit the classroom space so that they can all relate to one another.

In this sense, classroom distribution in small work groups and work areas favours connection with practical curricular theories because on one hand, it allows activities to emerge from the interests of students, and on the other, it allows groups to work autonomously using different spaces and transforming them according to their needs. In other words, this type of distribution allows children to inhabit the school in their space-time and with their own dynamics, directing and constructing their own learning in interactions with their context and their needs, not through pre-planned educational methods (Calvo, 2016). This type of space-time organization is typical in early childhood education because in this period of childhood the game, free exploration and socialization are the fundamental requirements of childhood development. However, in primary education in addition to training in social values and curriculum content there is a requirement for teachers to prepare students for adult life (Gimeno, 2005), that is, to introduce the productive elements into their educational practice. This, as we have seen, is done through spatio-temporal structures in rows.

7. Conclusions

Now that we have seen the ways in which the space constructs symbolism within the classroom and generates personal relations and class dynamics that are related to curricular practice, it is necessary discuss the didactic implications of classroom organization and the didactic use of spaces.

The type of spatial organization and occupation of each space by each participant in the classroom generates a series of dynamics that generally materialize in the hidden curriculum and that may condition educational practice. Thus, the teacher should be attentive to the use of spaces in their classes and employ them in a way that generates dynamics of communication and collaboration among equals.

It should be stated that schools have an organizational predisposition towards efficacy in the transmission of knowledge and control of students that generates a professional culture that reproduces these dominant values. The learning process and school dynamics should be rehumanized so that they do not become an obligation for students and instead are a source of satisfaction for them, allowing them freedom of movement and an experience of the meaning of "being" in different spaces. To provide this, teachers must construct dynamics in which the centre of attention is not polarized spatial-temporally, and its location can vary within the room.

The redistribution of space should be accompanied by methodological and ideological change among teachers. It is not possible to generate structural changes in the schools and classrooms to continue using the same traditional methodologies since there is no relation with each other and, generally, they will produce the expected changes. This accompanied by strong pressure from the dominant perspective, general that the teachers return to conservative approaches. We consider that teachers should be divest to restrictions imposed by the classroom since this will allow (re)construct an uncertain formative space-time in which different forms, space and learning times emerge.

From critical pedagogy perspective the educational transformation of space-time should be initiate from the interests and needs of the teachers. However, not any space and approach are valid to educational element but should be subject to ethical and practical question on the learning aspects that we wish to develop in community (teachers, students and society) should examine what question and learning wants to develop for change the community.

As future lines of research, it would be necessary to delve into how the new spaces used for learning in some subjects (e.g., physical education and activities in the natural environment) configure the bodies through the different architectural, cultural, and symbolic elements.

In addition, it seems necessary to develop research aimed to rethinking the classroom and the educational centre to turn it into a space-time for meeting knowledge in which bodies are not forced to occupy a specific space-time according to the sociocultural roles.

References

Althusser, L. (1970). Idéologie et appareils idéologiques d'État. (Notes pour une recherche). *La Pensée*, 151, 67-125.

Antolín, L. (2013). *Expresión Corporal. Fundamentos motrices*. València: Servei de publicacions de la Universitat de València.

Armstrong, T. (2001). *Inteligencias múltiples: cómo descubrirlas y estimularlas en sus hijos*. Bogotá: Norma editorial.

Calvo, C. (2016). *Del mapa escolar al territorio educativo: disoñando la escuela desde la educación*. La serena: Universidad de La Serena.

Claro, F. (2008). *De newton a einstein. Y algo mas*. Santiago de Chile: Ediciones PUC.

Colom, A. (2005). Discurso educativo y semántica de los espacios escolares. *Bordón*, 57(1), 99-112.

Di Paolo, E., Cuffari, E., & De Jeagher, H. (2018). *Linguistic bodies. The continuity between life and language*. Masachussetts: MIT Press.

Durt, C., Fuchs, T., & Tewes, C. (2018). *Embodiment, enaction and culture. Investigating the constitution of the shared world.* Masachussetts: MIT Press.

Elden, S. (2004). *Understanding Lefebvre: Theory and the possible*. London: Continuum.

Escudero, J.M. (2007). *Diseño, desarrollo e innovación del currículum*. Madrid: Síntesis.

Foucault, M. (1991). *Discipline and Punish: The Birth of the Prison*. Miami: Penguin

Freire, P. (2015). *Pedagogía del oprimido*. Madrid: Siglo XXI.

Galbraith, J.K. (2013). *Anatomía del poder*. Barcelona: Ariel.

García del Dujo, A., & Muñoz Rodríguez, J.M. (2007). Pedagogía de los espacios: análisis terminológico y construcción conceptual. *Ethos Educativo*, 39, 7-30.

Gimeno Sacristán, J. (1990). *La pedagogía por objetivos: Obsesión por la eficiencia*. Madrid: Morata.

Gimeno Sacristán, J. (2005). *La educación obligatoria: su sentido educativo y social*. Madrid: Morata.

Gonzálvez, C., Vicent, M., Sanmartín, R., Arráez, G., & García-Fernández, J.M. (2017). Indicadores de calidad en espacio, tiempo y materiales: nuevo recurso para la asignatura de organización del aula de Educación Infantil. In R. Roig-Vila (ed.) *Investigación en docencia universitaria. Diseñando el futuro a partir de la innovación educative* (pp. 255-261). Barcelona: Octaedro.

Guarro Pallás, A. (2007). Modelos de diseño de corte técnico y experto: descripción y balance crítico. In J.M. Escudero (coord.) *Diseño, desarrollo e innovación del curriculum,* (pp. 99-122). Madrid: Síntesis.

Hall, E. (1966). *The hidden dimension*. NY: Doubleday

Hargreaves, A. (1995). Development and Desire: A Postmodern Perspective. In T. Guskey and M. Huberman (eds.), *Professional Development in Education: New Paradigms and Practices,* (pp. 9-34). Nueva York: Tabacars College Press.

Henry, M. (2001). *Encarnacion. Una filosofía de la carne*. Salamanca: Sigueme.

Heras Montoya, L. (1997). *Comprender el espacio educativo. Investigación etnográfica sobre un centro escolar*. Granada: Aljibe.

Johnson, D., Johnson, R., & Holubec, E. (1999). *El aprendizaje cooperativo en el aula*. Barcelona: Paidós.

Lefebvre, H. (1991). *The production of space*. Oxford, UK: Wiley Blackwell.

López Martínez, A. (2005). La organización del espacio en los centros educativos: un factor determinante para el cambio de las estructuras organizativas. *Bordón*, 54(4), 519-533.

Martín, L. (2011). Mirando dentro de la escuela: la organización del espacio y los materiales. In M. Antón (coord.), *Planificar la etapa 0-6. Compromiso de sus agentes y práctica cotidiana,* (pp.185-210). Barcelona: Graó.

Merleau-Ponty, M. (2000). *Lo visible y lo invisible*. Madrid: Nueva Visión

Molina, P., Devís-Devís, J., & Peiró, C. (2008). Materiales curriculares: clasificación y uso en Educación Física. *Pixel Bit. Revista de medios y educación, 33,* 183-197.

Molina, P., Martínez-Baena, A., & Gómez-Gonzalvo, F. (2017). El uso de materiales curriculares en Educación Física: racionalidad y desarrollo profesional del profesorado. *VIREF, Revista de Educación Física, 6*(3), 9-28.

Molina, P., Valenciano, J., & Úbeda-Colomer, J. (2016). The Physical Education curriculum design in Spain: A critical review from the LOGSE to the LOMCE. *Cultura ciencia y deporte, 11*(32), 97-106. http://dx.doi.org/10.12800/ccd.v11i32.710

Monforte, J. (2018). What is new in new materialism for a newcomer? *Qualitative Research in Sport, Exercise and Health, 10*(3), 1-12. https://doi.org/10.1080/2159676X.2018.1428678

Moreno Doña, A. (2016). *Educación y caos: del insípido orden escolar al sabroso desorden educativo*. Santiago de Chile: Ediciones JUNJI.

Moreno Doña, A. (2017). Habitar la escuela: saboreando el enriquecedor caos educativo. In J. Osorio (ed.), *Habitar/Des-habitar, re-significar y transformar las escuela,* (pp. 28-35). La serena: Nueva Mirada.

Moreno, F. (2015). Función pedagógica de los recursos materiales en Educación Infantil. *Revista de Comunicación Vivat Academia, 133*, 12-25. https://doi.org/10.15178/va.2015.133.12-25

Motos, T. (1983). *Iniciación a la expresión corporal*. Barcelona: Editorial Humanitas.

Muñoz Rodríguez, J.M., & Olmos Migueláñez, S. (2010). Espacios abiertos y educación. Análisis e interpretación del lenguaje educativo de un espacio público. *Revista de educación*, 352, 331-352.

Shields, C. M. (1999). Learning from Students about Representation, Identity, and Community. *Educational Administration Quarterly, 35*(1), 106–129. https://doi.org/10.1177/00131619921968482

Tinning, R. (2010). *Pedagogy and human movement: theory, practice, research*. NY: Routledge.

Trilla, J., & Puig, J. (2003). El aula como espacio educativo. *Cuadernos de pedagogía*, 325, 52-55.